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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/956,004

DATE: 10/09/2001

TIME: 09:55:52

Input Set : A:\PB324D1.ST25.txt

Output Set: N:\CRF3\10092001\I956004.raw

3 <110> APPLICANT: Patrick J. Dillon et al.  
 5 <120> TITLE OF INVENTION: Nucleotide Sequences of Escherichia coli Pathogenicity  
 Islands  
 7 <130> FILE REFERENCE: PB324D1  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/956,004  
 C--> 9 <141> CURRENT FILING DATE: 2001-09-20  
 9 <150> PRIOR APPLICATION NUMBER: 08/976,259  
 10 <151> PRIOR FILING DATE: 1997-11-21  
 12 <150> PRIOR APPLICATION NUMBER: 60/061,953  
 13 <151> PRIOR FILING DATE: 1997-10-14  
 15 <150> PRIOR APPLICATION NUMBER: 60/031,626  
 16 <151> PRIOR FILING DATE: 1996-11-22  
 18 <160> NUMBER OF SEQ ID NOS: 142  
 20 <170> SOFTWARE: PatentIn version 3.1  
 22 <210> SEQ ID NO: 1  
 23 <211> LENGTH: 1178  
 24 <212> TYPE: DNA  
 25 <213> ORGANISM: Escherichia coli  
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 28 <221> NAME/KEY: misc\_feature  
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 30 <223> OTHER INFORMATION: n equals a, t, g, or c  
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| 50      | cggagacaag agaaacgttt taagctcagt tatctccGCC atcactttcc acgaatgaca  | 180  |
| 52      | agtaatTTG cctatTTAA aaccatgcaa aaggcagggt aaaaggagaa aattcgatcg    | 240  |
| 54      | aatcgatcga caaaatcgat catacatgat gaagatttct tatcgaatcc ataaaaatag  | 300  |
| 56      | tgacagctaa ccggcgttgc aggaacagtc agaaatgggc gtttgggaaa gagccatagc  | 360  |
| 58      | atacgtcgtc gctgacatag agaaactgtg ctTTGTTGAT aagatcctt atacggcaac   | 420  |
| 60      | caatccactg gacaaaagat gaactacgta atcaccgggt tctcaCTGAC gaaatacaga  | 480  |
| 62      | agtaatgac acaactgtgc catgcacctt gtacaacAGC ggtggaaAGC tctcagaaca   | 540  |
| 64      | atgaaATTGC agaaaggTGT taaaacgatg aaAGCCTTCa tacCCAAATC gaatgtAAGA  | 600  |
| 66      | acggcagtaa agactGAATT GCGTAACCTT GCACTAGTC GAGTATTACA CTGCACTAGTG  | 660  |
| 68      | tgcagggtta tctccCATCG agaaaATATC GGCGCCAGCG aataacgtca CCTTAGATGT  | 720  |
| 70      | agcagttGCC aaatAGTgAC tcaAGGGCGG GCTTACCGCA tacACTGACA CTTAGCGGAT  | 780  |
| 72      | cgacagaata ttattAGCAG atcatcACTG AACGCTACGT aattATCGTA ataaaggCTT  | 840  |
| 74      | tttctggcta ccaggaAGAC CTGACATGGC TCTGCTCTGG aaccaggCCG caggaAGCAT  | 900  |
| 76      | caatCTGGAG tttatcAGCT actGGAATTc CGGTGTATTG GcAGCCCCTG ataATCACCT  | 960  |
| 78      | gaccCACGAA gagCgtCTG CTTGcAGAA ACTCTGGGc GGTtTGGAGA caggAGATGT     | 1020 |

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| 160      | catctacagt agatgtacaa cctgttaagt taattgaaaa tggtgttaat ccgttggtt      | 180  |
| 162      | ctccagggtt agcaaggccc ttattcgata cagtggtaa tgttactgtaa aattaccat      | 240  |
| 164      | cattccctgt ggtcacattt caggtcttag ctacaacttt gcctgtaaac gtaattgttc     | 300  |
| 166      | cgtcataggc catagctgaa ccaacaaaca cagcagaaac aaatgttagcc aatgtataaa    | 360  |
| 168      | cttttatttt cataaaaatga attcctgttt aattccggta ttgatcattt gttcagcaat    | 420  |
| 170      | catccccaaac aaaacaatca tttcaaaaat gtttttaccg atcgataacc agcacatgt     | 480  |
| 172      | agattgcacc tatcatgatt gctaaaacga tcggggaaag cgatcaaaaa ccatatttat     | 540  |
| 174      | tgtgtggta atgacaaaag atatgctta ccctgaaatg agcgacccat tcatgaaaat       | 600  |
| 176      | atgttaggtct gtatttgatt actatcattt ctatatttcc actatccaat ttatatttca    | 660  |
| 178      | tgattaaaat atacccccat acactatttt ttatttggta cagcttgcc ggctttatct      | 720  |
| 180      | tattccgact attttatggt agatacagaa tacaattaat taaaacttatt taaagatttt    | 780  |
| 182      | ataaatacca tattggagtt gaccgataga tacctactaa caagagcaat caccaccacc     | 840  |
| 184      | ccatgaggtt ttaggaata caatcaataaa acaacatcca tgcccggcga cgtacatacc     | 900  |
| 186      | tgttgcata gatactgtt acgctacgt tgctaattt ctgaaactca gcacatgtcg         | 960  |
| 188      | acggagattc gtccggggcc tgatacaaca agggcaagaa aaccaccgca aatacagata     | 1020 |
| 190      | ttcttataaa aatggatcat attccatgt gcaagttcag ctggcatacg ccagaatgcg      | 1080 |
| 192      | tgtccaagaa atgaagcaaa cacggtatac aggacacagaa taatgctcac tggccgggtg    | 1140 |
| 194      | aaaaagccra aaacaatcat taatgctcca acgatttgcg caaggaccac tattgctgca     | 1200 |
| 196      | gtaatcgccg gaaatataag cccaaagagag gccattttat cgatagtgcg agtgaatgtat   | 1260 |
| 198      | agcagcttgg gaacgcccga tatcatataa aggcatgcca gcatcagacg ggcaaggagc     | 1320 |
| 200      | aacaatgccc acgtgttaatt tcccatatta aaatacctga ttttatccac tatcaatgt     | 1380 |
| 202      | cagtctcctt gtttctgata aagccctgag ccaaattcctt aagtgtacga gcaccactca    | 1440 |
| 204      | gtaacattgc cgtcctcagc tccgtcttca ggtgctcaat gacactggca acgccccccga    | 1500 |
| 206      | caccacctgc tgcgatgcca taaagaacag gacgtccgac cgcaacagcc gttccccca      | 1560 |
| 208      | gagagatagc ctttacaca tcaacccccc tgcgatattt gctgtcaaaa atgaccggaa      | 1620 |
| 210      | ctttgtgcc gactcttgca gcaacttcctt gcaactggct gatggcagaa ggaacaccat     | 1680 |
| 212      | caatctggcg accaccatga tttagacacctt ggatggcatt tgctcctgca tcaatggcga   | 1740 |
| 214      | ccactgcattt ctcacccctt aggtgcctt tgacaatgac tggcagcccg gtgattttt      | 1800 |
| 216      | ttacaaactt aatatcagcc ggggtcagttt caactttttt gttaaaaaaa tcacccccc     | 1860 |
| 218      | caccgttaacg ggggtcatga ttaccgaacg tcgctcctgc agggaaaggc gagctcatgc    | 1920 |
| 220      | ttagaaaaagc atacttgcg ccgggaccaa ggcgatccgc tggatataata atggctgaat    | 1980 |
| 222      | agcctgccc ttttgcacgc tccagtaaac ttccgggtcac accagcatcc gcgaaaaat      | 2040 |
| 224      | acagctggaa ccatttaggt ctttacttg ctttgcattt atccctccaga gagcggttgg     | 2100 |
| 226      | atgccccctga tgattcataa agtgcggccg cttttctgc acccgctgc gcaatcacct      | 2160 |
| 228      | cccttccgg atggacgaac atatgcgcgc ccataaggcattt tattcaggcagg ggtatgttca | 2220 |
| 230      | gatgtggcc caaaaggtaa gtcggatattt caatgtgtt ggcagcaact ccactgagtc      | 2280 |
| W--> 232 | ggtaggttaa caaaggataa tcactgaat gctctcggtt ctcatgatac gtccactcat      | 2340 |
| 234      | ctccagcacc atgagcaata tatgcatacg cagcttccgt catcacatct tttgtgaag      | 2400 |
| 236      | tctycaatgtt gtccagactg atgatatgaa gagatttgcg ggtcgatgtt tcagcatgtc    | 2460 |
| 238      | cagacgtttt actgtatgata tggccgtt aagatgagat attttgcg agggccggcg        | 2520 |
| 240      | cagttgacag cctgcggcag atattccataa aacggcattt tgaataaaaat tacgtccggaa  | 2580 |
| 242      | aagaggcata ataagctca tatattataa ataagccagg tctccctggc ttataatgtat     | 2640 |
| 244      | catgccacgc cctgaagcgg gttgggttg aaggataaa gggaaaatttt ccattcacca      | 2700 |
| 246      | ttaattttac tgaggacaaa aacttcacgg ttcaaggtaa taatggttt ctgcttttta      | 2760 |
| 248      | aagttcgta caacagaacc cacaatgggg tgagtgcggaa caaccgcgtt atctccgttg     | 2820 |
| 250      | atccagatag agtcaaacgc aaaatcggtt tcaaactttt cacgttggaa cagatcatcg     | 2880 |
| 252      | tactgccccctt ggcgttttc tgtattgtca gccgtcaact tattcatttca ctggaaataa   | 2940 |
| 254      | ctttcatcag caaacaggccc caggatggtt tttgtatccc cggcatttgc tgcttgc       | 3000 |

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| 260      | gcagccagag  | cattagagcc  | gaaaagaagg  | gatgatgcc   | tgactgtgt   | tgctataaaa  | 3180 |
| 262      | tgtttcataat | attctccatc  | agttcttctg  | gggatctgt   | ggcagcatat  | agcgtcata   | 3240 |
| 264      | ctatgtgt    | gtttcaatat  | tagcggcaga  | cgtcagcctt  | acccgactac  | ttattggata  | 3300 |
| 266      | agaatatacaa | aagtgaccgt  | gaagtcaatt  | ttatcacaac  | acagaaggcc  | actatttatg  | 3360 |
| 268      | cccagaaaat  | atgaatcg    | ctcatcatgc  | acgaaaagact | cgttagttgca | gccccggaaaa | 3420 |
| 270      | aactgccagg  | acacgacage  | agatagccc   | ggcagcactt  | gaggagtct   | ctgcacaagg  | 3480 |
| W--> 272 | gttcgctcgc  | gccacatnca  | gcaatatacg  | caagcgcgc   | ggagtagcta  | aaggcacgg   | 3540 |
| 274      | atataactac  | ttcccaacaa  | aggaattatt  | gtttaagcg   | gttctyaagg  | agttcattgc  | 3600 |
| W--> 276 | taccgtccgt  | actgaactgg  | aatcttcccc  | ccgccccaaac | gggggaaaacc | gtaaaaggct  | 3660 |
| 278      | atctgtttag  | agtgtatgtt  | cctgcccgtca | ggaaaattga  | cgacgcata   | acagggcagag | 3720 |
| 280      | ccagaatagc  | ccacccgtt   | atgacagaag  | ggagccgggt  | cccggtata   | gctcaggctt  | 3780 |
| 282      | atttacggga  | aatacatcag  | ccactacagc  | aagccatgac  | ccaactgtatt | cagaaggcag  | 3840 |
| 284      | catcagccgg  | agagttaaaa  | gcagagcaac  | tgctctgckt  | ccccctgtta  | ttgtctggctc | 3900 |
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| 290      | tgaccatgcc  | gtcaggagga  | ggtataaccag | tgataccctg  | ccatgacc    | gtaacgtc    | 4080 |
| 292      | ctggctgcct  | taaacctgaa  | agacctggcc  | ccaccacact  | gccgggttac  | catcaagatg  | 4140 |
| 294      | cagcaacc    | tgcataaggc  | tgttttgc    | agagggttac  | cgaaaaagata | ataacgtc    | 4200 |
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| 310      | aggcgtagta  | gtagtaaacg  | taatacatat  | ccggggaggat | gaagtcat    | aatctgtc    | 4680 |
| 312      | cccgaatatc  | atacagccat  | tcctgaggt   | gactgcacca  | tttcaatta   | tgcagtctgt  | 4740 |
| 314      | cctcatcaca  | aaaatgttgc  | aagcgttgc   | gagtcacgtt  | ccgtatttcat | gccctctgc   | 4800 |
| 316      | agatatttag  | cggggggagaa | atgtgtaa    | gtcaacagag  | cgccgtt     | acacttattt  | 4860 |
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| 320      | cagtacgctc  | aggatatggc  | gcagatacgc  | ttctggatcg  | ataccgttca  | accgacagct  | 4980 |
| 322      | cccgattagt  | ccgtacagca  | gagctccgc   | ctcgccctca  | tgatcg      | cgaagaacat  | 5040 |
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| 326      | ctccgcccaga | ccgtcatcac  | tgtataaaca  | gagggcgt    | cactgatca   | ggacatagct  | 5160 |
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| 334      | ttctgcccgtc | gtactttgc   | tgctgtatgt  | tacatgttgc  | attttgc     | gggcattggc  | 5400 |
| 336      | ccagcacgca  | acttctgtca  | gtgcaccacc  | ttcacgttgc  | gcactga     | gccgatcgta  | 5460 |
| 338      | accgctgaat  | gatccgc     | gcaggatacc  | ccggaaagg   | cgaagggtt   | gtaccggat   | 5520 |
| 340      | ttttccctgc  | ctgtctgg    | agttaggc    | ccagacc     | gggtggct    | atgagccgc   | 5580 |
| 342      | attccggtca  | tcccs       | gatccagat   | gcgtt       | tttgc       | ttctgcccgg  | 5640 |
| 344      | tgccagact   | tttactggta  | tgctgt      | gtgaa       | tttgc       | tcacgttac   | 5700 |
| 346      | gtacagggca  | tcattcagc   | gagtattaa   | ctggcagc    | gcgtcaac    | agttggagag  | 5760 |
| 348      | taatgcacgg  | ctcagttcgg  | caccctgtc   | ggcaagatt   | tcactctgac  | gatacgttgc  | 5820 |
| 350      | caggtttc    | cagtattt    | ccgttaacac  | gcggc       | aatccgg     | gacg        | 5880 |
| 352      | gcgtctatc   | gggcggggac  | gcgtt       | gcgttac     | cattt       | ttgtacaggc  | 5940 |

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82 tctttctgaa gaagaaaattt tctgggtggca atcaggtggc attttcccgat atccttggcc 1140
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97 agaggaagca gaggagataa atgacgataa tgatattaaat attatttcagc ataattcagc 180
99 cattagaaat aaaacaataag gtcaaataac tactcatcta gatcagatac cgataggaaa 240
101 tgaaggtgcc actgaatttg aacaatggtg ttttagacgca ctaagaataag tatttgcattc 300
103 ccacctaaca gacatcaagt cccatccaaa tggtaacgca gttcagagac gagatattat 360
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| 356      | agcactaact tcacccagat aatccagctc actgccacac tccgggcaac aaccttcttc      | 6060        |
| 358      | aggctccagg cggtgtattt cacggggaaatgtgctgtt aacggacac gatgacgtga         | 6120        |
| 360      | tggtcgcaac tggcgaaa ctgcgggtca tcctcacgc cactgtaacg atgccttcc          | 6180        |
| 362      | tgttcgcgtt gttcagttt ggcctcagcc tggtcaacct cacgctgcag ttttcagaa        | 6240        |
| 364      | cgggtaccca acagcatccg gcgcagttt tctatctggg ccctcagatg ttcttattcc       | 6300        |
| 366      | cgctcctcct cttcgatctt ttctcgcca cgtgccartg cagagcgcag gaaggcctcc       | 6360        |
| 368      | gtctcttcaa ccagactcag ttgctgatct ttctgacgga gggcttcagc ctgctcagag      | 6420        |
| 370      | agttagcctt ccagctcagt gatacgaatg aggtatccc gactcatgac cgttttata        | 6480        |
| 372      | atccggccat gacatttttcaacattgtc agtgcattaa ggcggatgt tttgggttga         | 6540        |
| 374      | cggcagtcca gtttacgag gaggattgcc agtgcgagc gggtaatgga tacattaccg        | 6600        |
| W--> 376 | <b>tcacgcaccc caghccagat aaactggct tcctccagac gtttgtgaa caggcacaga</b> | <b>6660</b> |
| 378      | ccatcagcat cagccccacag gattttaaatc gtgtcaccccc gtcggccgcg aaagataaac   | 6720        |
| 380      | aggtgaccgg agaagggtt ctcatccagc acatgttgc cctgttccacc cagaccgtt        | 6780        |
| 382      | aaggatttac gcatatcagt aacgcggca accagccaga ttcgagtgtc tgatggagc        | 6840        |
| 384      | gagatcatcg tcctctcccg gtcagttcac ggtcaacac cgtgagcagc tctgggtgaag      | 6900        |
| 386      | gattttccag cgtcatgtt ccgtggcgga actcaactt acaggaactg gcactgactg        | 6960        |
| 388      | tgctttgtga aggagtggat aaaagoggag taagagccgc cataggctct ttctgctcat      | 7020        |
| 390      | caggcgttat ctcaacaggt aataattcaa cgccagcgc gagaagagtt gttaccggaa       | 7080        |
| 392      | gacgcgcga tatacgcct tcgttctgcc agagcctgag ccatttgaac aggaggttat        | 7140        |
| 394      | cattgatatc gtgttccctg gcaatacggg caacagaggc ttctggtgtt gaagccagtt      | 7200        |
| 396      | taaccatttga aagttaaac tcatttggaa atgttctgc gggttctgcg gataatattt       | 7260        |
| 398      | tctgttccat aacaggtgtc cactagttga aaaagtggc acctacgta ccaatactgg        | 7320        |
| 400      | cttaatggct acatacggcg gtcagtttac gcttacagaa atgtaatgaa cacgtcctac      | 7380        |
| 402      | cattaactga agagcatggt gacggatgaa gaaaaaaagca ggagtgtgtg gtgcctcaca     | 7440        |
| 404      | gatttccgac atcatagctg tcaacgcacgg atgaaaaagcg gctcttcgc aacttgggt      | 7500        |
| 406      | gaagaaaaatg gatgaaaactt tctgggtgtga gAACCTTAAG gaaacaaacat gttgggttga  | 7560        |
| 408      | gcggacaatc caaatgggtga attaccgtct tatactactg ggcgtgacat tccggccgtc     | 7620        |
| 410      | ttctccgcca caacgcatt tgcaatgtc cacaggccag ttgtgtgtc attcgcgggt         | 7680        |
| 412      | acatcgacca gccaataacg ggcgtgtacc acaggtcgat gactactgcg agataacaacc     | 7740        |
| 414      | agccctcattc ggtacgcaag tamgtgatgt caccgcggca mttctgggtc ggagcctggc     | 7800        |
| 416      | gctgaagttc ctgctccaggc agattctcca atacgggcag gccatgtgca cggtagctga     | 7860        |
| 418      | ccgggctgaa cttccggctg cttcgcccg cagccctga cgacgcaggc tggcggcaat        | 7920        |
| 420      | gttttaata ttgaactccg gcatttcgtc agcaaggcgg ggagcaccgt atcgctgtt        | 7980        |
| 422      | tgccctcaatg aatgccttat ggacagcggc atcgcagggt agccgaaact gttggcgcag     | 8040        |
| 424      | gctcatctgg tgacgacgcc tgagccagac ataccagccg ctgcggccaa cccgaagtac      | 8100        |
| 426      | acgacacatc gcttgcattc tgaactctgc ccgatgattt tcgatgaaga cataacttcat     | 8160        |
| 428      | ttcaggcgt tcgcaagta tgtcggcc tttggagga tggccaggcc tcagcctgc            | 8220        |
| 430      | tccggccattt gtcgtttaag gcccacattt tcagcggca gttcgcttc ggcgtctgac       | 8280        |
| 432      | gaactcattt gttgtgtctg tttactgtgc caggcataaa gctgagatcc atacaggctg      | 8340        |
| 434      | agttcacggg ctgcggccggc cacaccgtg cgttcagcga gtttcaggcc ttgttacga       | 8400        |
| 436      | aattcaggcg tatgtgtttt acggggcttc ttgctgattt atactgggtt tgcatgagt       | 8460        |
| 438      | cacctctggt tgagagttt ctcacttagt cctgtgtcca ctattgggtt gtaagatcac       | 8520        |
| 440      | tcagcaacgt atcaaaaatca tggcggttc ggcgtataca ttttattcgat                | 8580        |
| 442      | accgcgaact ggtcgatgaa ggcgggtgg atgcgtgtat taatcgatg gcccgcgtcc        | 8640        |
| 444      | taaccttaag aacgtaccga tgaggcaact gaacaggctg ttgttgcattt cgcgcgtc       | 8700        |
| 446      | ttcccgccac acggcgtcagca ccggaccaggc aaacaagctg cgtaaacagg gc           | 8752        |
| 449      | <210> SEQ ID NO: 4   |             |
| 450      | <211> LENGTH: 2417   |             |

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/956,004

DATE: 10/09/2001  
TIME: 09:55:53

Input Set : A:\PB324D1.ST25.txt  
Output Set: N:\CRF3\10092001\I956004.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No  
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:46 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:232 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:272 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:276 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:376 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:553 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:608 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:622 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:937 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:963 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:965 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:1055 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1090 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9  
L:1119 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10  
L:1159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10  
L:1290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11  
L:1327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:1337 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:1359 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:1411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:1432 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:2159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14  
L:2173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14  
L:2280 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15  
L:2397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16  
L:2399 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16  
L:2465 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:2709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20  
L:2863 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20  
L:2948 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:2950 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:2962 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:3081 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22  
L:3095 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22  
L:3097 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22  
L:3196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:3231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24  
L:3292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25  
L:3294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25  
L:3315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26  
L:3381 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26

**VERIFICATION SUMMARY**  
PATENT APPLICATION: US/09/956,004

DATE: 10/09/2001  
TIME: 09:55:53

Input Set : A:\PB324D1.ST25.txt  
Output Set: N:\CRF3\10092001\I956004.raw

L:3428 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27  
L:3430 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27  
L:3432 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27  
L:3446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27